

User's Manual

Ground Plane Antenna LA-107 (216 MHz)

for use with: LT-800-216
LR-100-216
LR-600-216

(January 18, 2001) List (aka City, Utah, USA - Listen Technologies Corporation is pleased to announce that Paul has joined the company as the Marketing Manager and the newest member of the marketing team. In his role, Paul will be using the product used in a variety of creative projects, including presentations, brochures, advertisements, catalogs, direct mail, corporate identity and packaging - including the design, layout and formatting of all marketing materials.

"Paul's experience and ambitious energy are an asset to the Listen and our marketing team," said Gary Schaeffer, Listen's vice president of sales and marketing. "We are so glad to have him on our marketing team."

Paul comes to us with extensive experience in the digital graphics technology and has been a strong presence over the past few years in print, web and other design-related fields. He is currently with Listen (aka company) and a team effort. "I'm excited to be part of such a growing, innovative company," said Paul. "I'm looking forward to working with the Listen team to increase and enhance our audience outreach. Marketing's goal for 2001 is to take marketing to a whole new level and I am proud to be part of that initiative."

About Listen Technologies Corporation
Listen Technologies Corporation manufactures and distributes wireless audio products used in business, education, healthcare, law enforcement, government, entertainment and conferencing applications. Listen products provide superior audio performance, flexibility and ease of use, making

them the ideal choice for schools, houses of worship, business, entertainment facilities, government agencies and other entities. For more information on Listen products, contact:

Listen Technologies at 800-555-0991, or visit www.listen-tech.com.

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Listen.
www.listen-tech.com



Dear Valued Customer,

Thank you for choosing Listen! All of us at Listen are dedicated to providing you with the highest quality products available. We take great pride in their outstanding performance because we care that you are completely satisfied. That's why we independently certify them to the highest quality standards and back them with a limited lifetime guarantee. We stand ready to answer any questions you might have during installation or in the operation of our products. Should you experience any problems whatsoever with your Listen products, we are ready to help you in any way we can with prompt, efficient customer care. Because at Listen, it's all about you! And should you have any comments on how we might improve our products or our service, we're here to listen.

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Thank you... and enjoy your listening experience!

Best regards,

The Listen Team

LA-107 Package Contents

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- 1 Antenna base assembly
- 2 Three ground radials
- 3 Mounting Hardware
- 4 50 ft. (3 m) RG 58 coaxial cable with PL-259 and LA-127 connectors
- 5 Extra LA-127 connectors
- 6 User Manual (not shown)

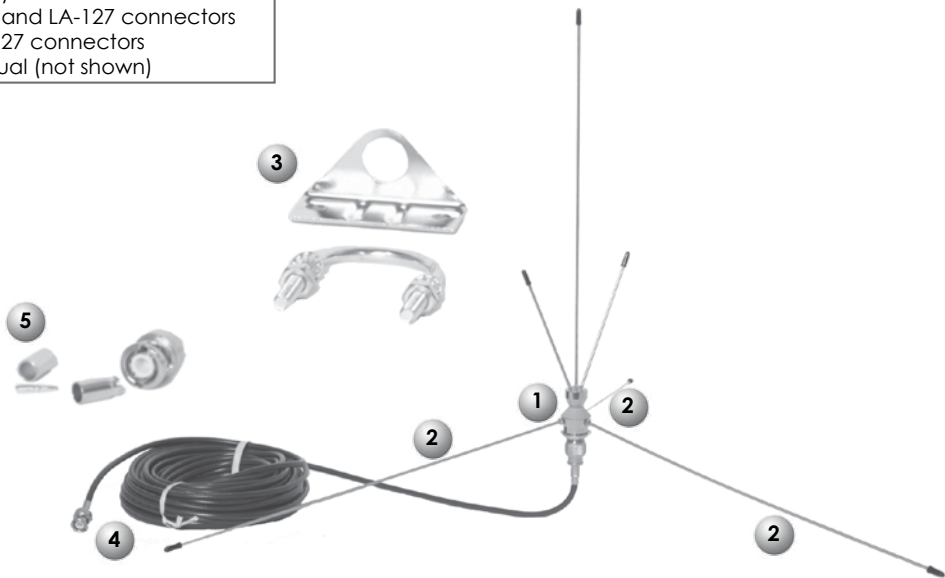


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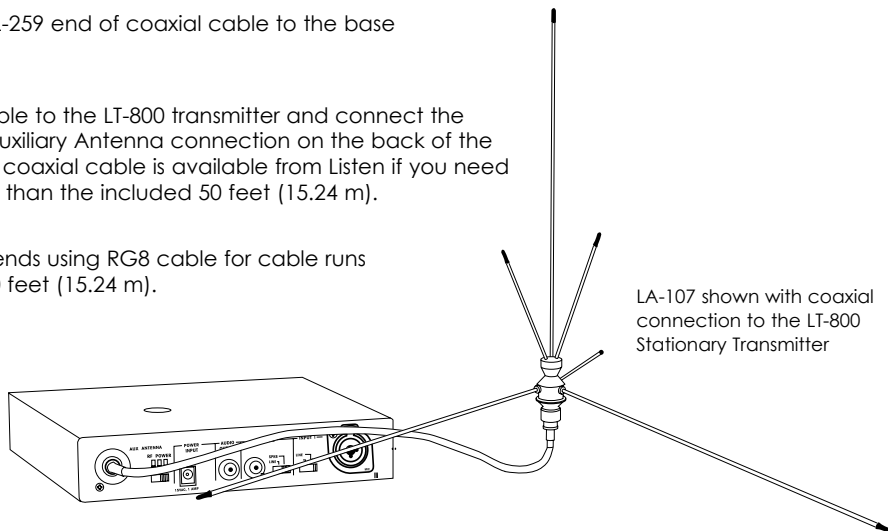
LA-107 Specifications

Specifications

Specification	LA-107
Frequency Range	216.0125 - 216.9875 MHz
Center Frequency	216.5 MHz
Antenna Type	¼ Wave, Ground Plane
Unity Gain	0 db (unity)
Beam Width	360°
Mounting	Mast bracket up to 1.50 in. (4.0 cm) diameter
Size	13.50 in. (34.0 cm) base with 13.50 in. (34.0 cm) ground radials

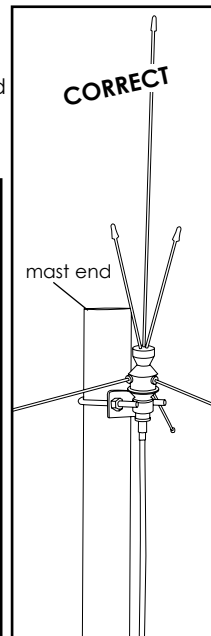
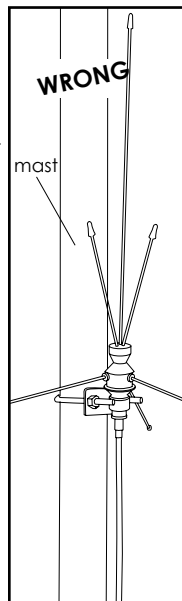
Installation

- 1 Screw ground radials into antenna base assembly and secure with tightening nuts.
- 2 Mount your antenna in a strategic location. See "Mounting Your LA-107" on the following page.
- 3 Connect the PL-259 end of coaxial cable to the base of the antenna
- 4 Run coaxial cable to the LT-800 transmitter and connect the LA-127 to the Auxiliary Antenna connection on the back of the unit. Additional coaxial cable is available from Listen if you need a length longer than the included 50 feet (15.24 m).
- 5 Listen recommends using RG8 cable for cable runs greater than 50 feet (15.24 m).



Mounting Your LA-107

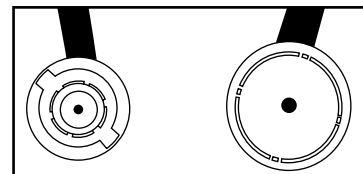
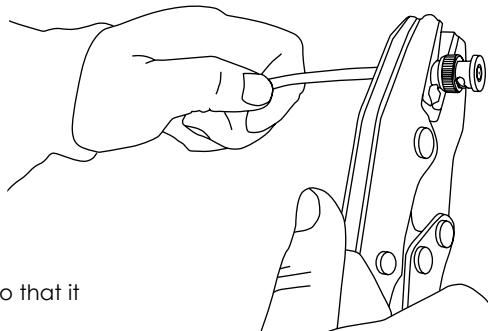
- Mount the antenna in a strategic location. Your antenna may be placed either indoors or outdoors. If mounted outside, the highest elevation should not exceed 100 feet (30.5 m). The antenna should be placed in a location that will provide the best line of sight to the receivers. Keep in mind that the higher you have the LA-107 mounted, the more range you will get out of your receivers.
- The LA-107 includes a bracket that allows it to be mast mounted (vertical pole) up to 1.5 inches (4 cm) in diameter. This pole can be made of metal or plastic. However, if using a metal mast, the LA-107 should be isolated from the ground. It is very important that your mast does not extend above the antenna radiator. This will create interference and multi-path to the receiver.
- Mount LA-107 away from power lines, telephone lines and metal surfaces.
- For maximum range, your transmitter should be set to "High" RF power.
- Run the coaxial cable from the antenna to your device, keeping the cable length as short as possible (see page 4, Shortening the Coaxial Cable if necessary). To optimize the efficiency of the LA-107, or to extend the length of your cable run, RG-8 can be used in place of RG-58.



Shortening the Coaxial Cable (optional)

The coaxial cable from the LT-800 to the antenna should be kept as short as possible. Listen has included an extra LA-127 BNC connection to install if the length can be shortened.

- 1 Cut Coaxial cable to desired length leaving PL-259 connection.
- 2 Strip back cable jacket 0.6 inches (15 mm).
- 3 Strip back cable braid 0.25 inches (6.4 mm).
- 4 Strip back cable dielectric 0.15 inches (4 mm).
- 5 Slide outer ferrule onto cable.
- 6 Slide male contact on cable center conductor so that it butts against dielectric.
- 7 Crimp male contact in place using crimp tool. Do not overcrimp.
- 8 Fold braid back to allow the plug body assembly to slide under braid.
- 9 Push plug body on cable until center pin is flush with end of plug body.
- 10 Slide outer ferrule over the braid and up against connector body.
- 11 Crimp outer ferrule using crimp tool.
- 12 Check continuity of cable center conductor and sleeve to verify proper installation.



LA-127 Connection PL259 Connection

Warranty

Warranty

Listen Technologies Corporation (Listen) warrants its transmitters and receivers (LT-82, LT-700, LT-800, LR-100, LR-42, LR-44, LR-300, LR-400, LR-500, LR-600) to be free from defects in workmanship and material under normal use and conditions for the useful lifetime of the product from date of purchase.

Listen warrants its Stationary IR Radiators (LA-140) to be free from defects in workmanship and material under normal use and conditions for three years from the date of purchase.

Listen warrants its Noise Canceling Microphone (LA-270) to be free from defects in workmanship and material under normal use and conditions for one year from date of purchase.

All other products and accessories are warranted for 90 days from date of purchase.

This warranty is only available to the original end purchaser of the product and cannot be transferred. Warranty is only valid if warranty card has been returned within 90 days of purchase. This warranty is void if damage occurred because of misuse or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not cover normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect. Listen is not liable for consequential damages due to any failure of equipment to perform as intended. Listen shall bear no responsibility or obligation with respect to the manner of use of any equipment sold by it. Listen specifically disclaims and negates any warranty of merchantability or fitness of use of such equipment including, without limitation, any warranty that the use of such equipment for any purpose will comply with applicable laws and regulations. The terms of the warranty are governed by the laws of the state of Utah.

In the first ninety days after purchase, any defective product will be replaced with a new unit. After ninety days, Listen will, at its own discretion either repair or replace transmitters and receivers with a new unit or a unit of similar type and condition. Product that is not covered under warranty shall be repaired or replaced with a unit of similar type and condition based on a flat fee. Contact Listen for details.

This limited warranty, prices and the specifications of products are subject to change without notice.

Contacting Listen

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If technical service is needed, please contact Listen. Pre-authorization is required before returning Listen products. If products were damaged in shipment, please contact the carrier, then contact Listen for replacement or repair requirements payable by the carrier.

Listen's corporate headquarters are located in Salt Lake City, Utah U.S.A. and are open Monday through Friday, 8am to 5pm Mountain Time.

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